ENVIRONMENTAL PROTECTION AND LANDSCAPING

63-05.0100 ENVIRONMENTAL PROTECTION

.0110 General - Highway construction can cause water pollution, air pollution, erosion, and can otherwise damage the environment. Damage may not always be restricted to the right-of-way, occasionally causing the silting of streams outside project limits. Visual pollution (eye sores) can result from poor selection of waste and borrow sites and the final condition of these sites. Haul roads are also a possible source of erosion, pollution, and unsightliness if not intelligently located and constructed.

The Standard Specifications for Road and Bridge Construction and the plans and proposal contain the requirements and procedures to control erosion and minimize air pollution during construction. There are also state and local laws and ordinances to be followed that the Project Engineer will have to acquaint himself with (i.e., burning laws, state water pollution control laws).

.0120 Responsibilities

.0121 The Contractor - In accordance with Section 213.03.01 of the Standard Specifications, the contractor is required to sign the BMP plan from the Proposal addressing temporary and permanent erosion control work for the project This Plan shall be supplemented by a TC 63-61 Erosion Control Inspection Report which lists the first areas to be disturbed and BMP's to be used. Once constructed, these BMP's shall be approved by the Project Engineer before work can begin. The BMP Plan should be signed at the pre-construction conference and no disturbance shall be made before it is signed. This plan is to cover the entire project, including methods of erosion control on waste areas, borrow pits, and haul roads.

All laws and ordinances to protect the environment are to be followed. (See Sections 107.01 107.01.03, 107.01.04 and 213.03 of the Standard Specifications). All erosion control work, both temporary and permanent, is to be coordinated throughout the life of the contract to provide effective and continuous erosion control.

The Contractor shall be responsible for all areas of disturbance outside of right-of way and a SPCC Plan as described in Construction Memo No. 03-07 (see exhibit 63-5-1).

.0122 Project Engineer - It is the Project Engineer's responsibility to enforce the requirements of Section 212 "Erosion Control" and Section 213 "Water Pollution Control" in the same manner as the rest of the Specifications. Particular attention should be given to:

1. Clearing and Grubbing - Clear no more than is necessary to construct the road and provide safety. Be particularly careful to preserve vegetation along streams. If there is no clearing line on the plans, establish clearing limits. For additional information see Section 63-07.0120 of this Manual.
2. Burning - Burn in accordance with state and local laws. Do not burn near live timber since heat from fires may kill or damage standing timber.
3. Stream Crossings - Construct as specified in Section 213.03 and 213.03.04 of the Standard Specifications. (See paragraph .0160 of this chapter.)
4. Erosion Control - Sign the BMP Plan and cooperate with the Contractor as described in Section 213.03.01 of the Standard Specifications and Construction Memo No.02-06 (see exhibit 63-5-2). Rigorously perform and enforce inspections (see TC63-61 exhibit 63-5-3) and maintenance of the BMP's as described in Section 213.03.03. Provide the Contractor a copy of all inspections which require remedial action. Keep a BMP Plan notebook which contains information as outlined in exhibit 63-5-4.
5. Pollutants - Make periodic inspections of fuel storage areas and other possible pollutants to check for leaks. Never allow pollutants to be stored near waterways without some means of preventing material from entering stream in case of accidental spills. Reference the project KPDES BMP Plan, groundwater protection plan and Oil Pollution SPCC plans for specific requirements.
6. Rock Drills - Check periodically to insure that water sprays and dust collectors are operating.
7. Dust Control - Require watering of grade during dry periods to prevent air pollution and to provide safety.
8. Permanent Seeding - Require the Contractor to prepare a seeding plan as per Section 212.03.03 of the Standard Specifications. Require progressive seeding during favorable weather and designate areas (not quantities) to be seeded.
9. Waste Areas, Borrow Pits, and Haul Roads - Consider erosion potential and unsightliness in making decisions as to approval or non-approval. Refer to Construction Memo No. 03-07 (exhibit 63-5-1) paragraph 2 before giving approval. See Section 63-07.0240 "Borrow Excavation", 63-07.0250 "Waste", and Section 63-07.0400 "Haul Roads" in this manual.

.0130 Seventeen Acre Limit - In accordance with Section 213.03.02 of the Standard Specifications, no more than 750,000 square feet (17.22 acres) of erodible material may be exposed on a project without a written request by the contractor and approval by the Project Engineer. Permission shall only be given where the Project Engineer is satisfied with the contractor's effectiveness in controlling erosion on areas previously exposed.

One procedure used by many contractors, which is acceptable to the Highway Department, is to clear a project without grubbing it. This procedure does not normally expose erodible earth until the stumps and brush are grubbed which can be done in a progressive manner just ahead of the grading operations.

The purpose of the 17-acre limit is to place the Project Engineer in a position where he can control the amount of disturbed area on a project. This requirement plus the use of temporary erosion controls and progressive seeding reduces the erosion and resulting water pollution potential.

.0140 Temporary Erosion Controls

.0141 Types - Temporary erosion control measures are to be used to control erosion until a permanent stand of vegetation can be established. The different types of installations are to be used as needed on areas disturbed on the project including haul roads, borrow pits, and waste areas. The different types of controls are:

1. Brush Barriers
2. Silt Traps
3. Silt Fence
4. Temporary Mulch
5. Sedimentation Basin
6. Temporary Seeding and Protection
7. Temporary Ditches

See Section 213.03.05 of the Standard Specifications for construction procedures and requirements on the use of temporary erosion controls. The locations of the temporary controls may be shown on the plans as site specific but are usually proposed by the Contractor as per paragraph 05.0121 and approved by the Project Engineer. These locations are also designated as part of the regular inspections. Any temporary erosion control work that is necessary due to negligence, failure to install permanent seeding during favorable conditions or other permanent controls as directed by the Engineer is to be performed at the expense of the contractor.

.0150 Permanent Erosion Control

.0151 Seeding and Protection - The contractor is required to perform permanent seeding as grade work progresses. Exposed areas are to be brought to final configurations as soon as practical and seeding performed. If Permanent Seeding and Protection is not practical within 14 days the area must be stabilized by some other method. The Project Engineer may limit any new excavation based on the contractor's ability to seed and protect existing exposed areas.

The 17-acre limit on exposed erodible areas applies to grade work as well as

clearing and grubbing. This limit is the maximum with the actual amount of allowable exposed erodible earth to be based on existing conditions in the field (i.e., capability of contractor to "keep seeding caught up," erodibility of soils, and time of year).

See Section 212 of the Standard Specifications for seed mixtures, rates, materials, and procedures to be used in seeding operations.

Whenever a paved ditch is added in an area previously seeded and protected, any reseeding or sodding required as a result of this operation is to be paid, provided the disturbed area is reasonable. This same criteria also applies to any reseeding required on disturbed areas previously seeded or sodded at the Project Engineer's direction when a plan change requires these areas to be disturbed.

.0152 Sodding - See Section 212.03.04 and 827.11 of the Standard Specifications. All sod is inspected at the source and is subject to inspection on the project. Any sod that has browned out or contains weeds is to be rejected or culled on the project. Sod is guaranteed in accordance with Section 212.03.04 of the Standard Specifications. Normally, the time frame for the check of the sod guarantee will coincide with the "Acceptance of Seeding" inspection and will be performed at that time by the Division of Construction Specialty Liaison.

.0153 Erosion Control Blanket - Use in accordance with Section 212.03.03 E of the Standard Specifications.

.0154 Permanent Turf Reinforcement Matting – See special notes in Standard Specifications

.0155 Paved Ditches and Channel Linings - (See Section 709) of the Standard Specifications for paved ditches and (Section 703) for Channel Linings.

Paved ditches and channel linings are to be installed as early as possible. <u>On occasion, the project plans require the installation of paved and/or rock lined ditches as one of the first operations. This requirement must be followed closely.</u> The use of channel linings in highly developed urban areas is questionable due to their unsightliness as woody vegetation develops, creating maintenance problems. Research has shown that Turf Reinforcement Matting and grass can be used in place of channel liner. The Project Engineer is to monitor erosion as it develops and permanent controls other than seeding is needed.

.0156 Top Dressing - Top Dressing is an additional application of fertilizer and possibly agricultural limestone which is applied, at a predetermined strength and rate, to specified seeded and sodded areas on the project that have an existing satisfactory stand of vegetation. The purpose of the top dressing is to

give the vegetation on the project a final application of fertilizer to strengthen it. It should never be applied to the project until the grass has matured beyond the seedling stage. See Section 212.03.03 D of the Standard Specification for the requirements of top dressing.

Top Dressing is a separate item of work and is a pay item. Depending on the situation, it will not normally be applied to a project until after it is called complete. No liquidated damages will be assessed in this event, provided the work is completed as specified in Section 108.09 of the Standard Specifications.

The desirable time to make the decision concerning the top dressing application is at the "Acceptance of Seeding" inspection which is discussed further on in Section 63-05.0240 of this chapter. The Division of Construction Specialty Liaison will advise the Project Engineer on the advisability of utilizing top dressing at that time.

.0160 Construction Activities Affecting Streams - The USACE Nationwide Permit #14 limits such activities to the minimum necessary to construct the project (See exhibit 63-5-5). Section 213.03 and 213.03.04 of the Standard Specifications summarizes the requirements of this Permit.

Channel changes are to be constructed in such a manner as to minimize water pollution An undisturbed "plug" of soil or rock should remain in place on the upstream end of the channel change until the remainder of the channel change has been completed, including rip-rapping and fish habitat improvement structures when required. Construction of channel changes should not begin so late in the construction season that they will remain incomplete during winter shutdown unless they are entirely in rock excavation.

Always check the plans and proposal for any reference to the "Department of Fish and Wildlife." Sometimes they are to be contacted regarding the diversion of water from the natural stream into the channel change and also to give advice on the location of fish habitat improvement structures. All dams used for diversion of water from the natural stream into the channel change are to be constructed of rock. Also give particular attention to the type and size of stone to be used for rip-rap.

.0170 Sinkholes - Section 215 of the Standard Specifications details the required treatment of sinkholes within project limits. Due to EPA restrictions it is very important that these treatments be adhered.

.0180 Withholding Work Estimates - Whenever it is determined by the Project Engineer that a contractor is not complying with contract requirements to control erosion and to prevent water pollution, payment on work estimates may be withheld and/or grading operations may be suspended (Section 213.03.02 of the

Standard Specifications). This includes failure to satisfactorily install temporary or permanent erosion controls. See Section 63-02.0240 of this manual for procedures concerning withholding pay estimates. Payment is to be withheld until the project is brought into compliance.

.0190 Liquidated Damages – Sections 105.12, 108.09, and 213.03.02 states how liquidated damages are to be assessed. Inspection form TC 63-61 (exhibit 63-5-3) stating required remedial action and delivered to the Contractor serves as the written notification.

63-05.0200 FINAL INSPECTION AND ACCEPTANCE

.0210 The Project Engineer - The Project Engineer shall include erosion control work and related items in his project final inspection. A written record shall be made of all corrective and/or additional work considered necessary to bring the project into compliance with the applicable plans, specifications and other contract documents.

.0220 The District Construction Office - The District Construction Office shall review all erosion control and related items as part of its final inspection and note any corrective work necessary to bring the project into compliance with the applicable plans, specifications and other contract requirements.

.0221 Combination Final - It is preferable for the Project Engineer and the District Construction Office to combine their final inspections. In this event, the Project Engineer shall include appropriate notes in his inspection report including the names of the inspection party.

.0222 Scope of Final - The final inspection(s) is the Department's last effort at controlling erosion under the applicable contract so the inspection(s) must be thorough with regards to all phases of erosion control and seeding. Ditches which have eroded should be repaired or dressed and lined if necessary. Pipe inlets/outlets should be checked for erosion and protected as necessary. Sod should be checked for life and correct installation and repaired if necessary. Erosion Control Blanket and/or Turf Reinforement Matting should be checked for proper installation and necessary corrective measures specified. The seeding should be checked closely with any repairs specified even though it will get another inspection later - see *Acceptance of Seeding* below.

.0230 The Central Office - A representative of the Director, Division of Construction shall make a final inspection of all erosion control and related items on the project at or near the time the project is called complete.

.0231 Corrective Work - Corrective and/or additional work required as a result of the project final inspection(s) shall be completed and paid in accordance with the requirements of Section 212.04.06 of the Standard Specifications. This work shall be completed at the earliest practical date in order not to conflict

with the requirements involved in the "Acceptance of Seeding" as discussed next.

.0240 Acceptance of Seeding - The contractor is required to care for and maintain all erosion control work in a satisfactory condition throughout the life of the contract. After a project has been called complete, the acceptability of the seeding will be determined by the Division of Construction Liaison within a three month to six month time frame as prescribed in Section 212.03.03 G of the Standard Specifications. At that time, it will be determined what corrective work, if any, is required to place the project seeding in a satisfactory condition. If the project has a relatively small seeding area, no sod, and the existing stand of grass is the specified type and appears satisfactory, the Acceptance of Seeding inspection may be performed at the time of the final inspection.

Payment and procedures for any corrective work will be in accordance with Sect. 212.04.06 of the Standard Specifications. The Project Engineer shall not allow any corrective work that was directed prior to project completion or as a result of final inspection(s) to carry over to the time of the final inspection for Acceptance of Seeding.

Any corrective work found necessary on the erosion control inspection for Acceptance of Seeding will be performed as soon as conditions become favorable for this work. The time frame for completion of this corrective work shall be in accordance with Section 108.09 of the Standard Specifications. Accordingly, the contractor may be given a specified date to complete corrective work on the inspection report. Note the assessment of liquidated damages at a reduced rate when corrective work to fulfill seeding acceptance requirements is not completed as applicable.

The need for top dressing will normally be determined at the same time as the "Acceptance of Seeding" inspection as will the sod guarantee inspection

63-05.0400 LANDSCAPING

.0410 General - Aesthetic significance is created when plant life, which was destroyed during the construction phase, is replaced with high quality nursery-grown plant material onto the reshaped terrain. This cosmetic approach aids in softening the scars left behind by highway construction. Systematic rearrangement of trees and shrubs is utilized quite extensively on major thoroughfares and is considered to be essential to the general acceptance of a project by the populace.

The importance of a Landscaping (Beautification) project cannot be overemphasized. Individuals assigned to supervise a project of this nature should be made aware of the significance that such a project has on the overall highway system.

The Landscaping contractor's operation consists of furnishing high-quality plant

material and professional workmanship. Emphasis must be placed on maintaining the quality of plant material and workmanship throughout all phases of his operation.

.0420 ***The American Standard for Nursery Stock*** - Section 724.02 of the Standard Specifications stipulates that "All plants shall conform to *The American Standard for Nursery Stock* , current edition, as published by the American Association of Nurserymen, Landscape Architects, Landscape Contractors and others trading in or specifying nursery plants."

The Project Engineer should receive a copy of "The American Standard for Nursery Stock" at the onset of a landscaping project. He should also receive specialized equipment such as calipers and other measuring devices to enable his personnel to perform plant inspections. The standards and measuring devices are available by contacting the assigned liaison in the Division of Construction, Central Office. A Project Engineer who has been assigned landscaping projects in the past may have copies of *The American Standard for Nursery Stock* in his office. However, he is cautioned to check on the current status of his information with the assigned central office liaison since these standards are revised rather frequently.

.0430 **Responsibilities** - As stated in Section 724.03 of the Standard Specifications, the contractor has seasonal and other various restrictions to which his planting and landscaping operations must adhere. This section gives planting seasons, weather conditions, and other conditional requirements, which restrict the contractor's activities. These requirements must be followed closely if a project is to have high percentage of plant survival.

Many times in the early stages, while staking the project, the tree or bed location may require relocation due to unforeseen circumstances. If problems such as these arise and the Project Engineer needs advice, he is expected to obtain help in relocation or any other adjustment from the central office liaison who is willing to advise and assist in these areas. The Project Engineer should work closely with the central office liaison assigned to that area on all landscaping matters. As in all cases, however, the Project Engineer should submit his requirements to the District Construction Office and not directly to the Central Office.

.0440 **Transportation** - All plant material shall be transported from the nursery source to the project site by covered vehicle. This can be accomplished by covering the entire load of plants, or individually. The reason for covering plant materials is to protect them from windburn and dehydration. Plant transportation may take place in some instances by covered van. At any rate, all plants should be protected from sun and wind while in shipment from nursery to project site, per specification 724.03.02.

.0450 **Temporary Storage** - In accordance with Section 724.05 of the Standard Specifications, the contractor shall immediately make provisions for temporary

storage of plant material. This section should be dealt with early, within a matter of hours, after plants are received on the project site. The storage procedures shall by closely supervised by the Project Engineer and the central office liaison.

.0460 Planting Holes - As stated in Section 724.07 of the Standard Specifications, and as also stated on the summary sheet of plans, the plant hole dimensions shall be strictly followed. This needs to be emphasized throughout the initial plant phase.

.0470 Pruning - Due to the transplanting process, it is understood that a large portion of plant root systems are lost. Taking this into consideration and using expert advise from successful nurserymen and *The American Standard for Nursery Stock*, it is necessary to compensate for this root loss by removing a prescribed outer portion of the branching or twigs from deciduous shrubs and trees. Approximately, one-third to one-half of the growth of the previous season should be removed. The central office liaison should be consulted before pruning operations commence.

.0480 Initial Planting Procedure - Section 724.12 of Standard Specifications provides detailed information on planting of balled and burlapped (B & B) container grown, bare root and seedling plants. This section should be adhered to closely. It provides dimensions and step-by-step instructions.

.0481 Plant Materials - All plant materials should be inspected in the nursery prior to being dug, whenever possible. This inspection shall be performed by the central office liaison. In any event, all plant materials shall be inspected and accepted by the Project Engineer in conjunction with the central office liaison (preferably immediately after being received). *The American Standard for Nursery Stock* is the guide used for plant material requirements.

.0482 Certificate of Inspection - Plant Material Certificate of Inspection must accompany all plant shipments. This certifies that the State Entomologist has inspected the nursery and found it to be free of harmful disease and insect pests. Do not confuse the Certificate of Inspection with plant invoice. The Certificate of Inspection and plant invoice are two separate documents. The plant invoice must state correct variety and size shipped.

Both previously discussed documents must be presented to the Project Engineer or his representative prior to the plant material being unloaded onto the project.

As plants are being unloaded, the Project Engineer or his representative shall inspect the plants for proper size and quality. If balled and burlapped plants are received, the ball dimensions must be checked and they must conform with requirements specified on the plans and/or proposal.

All shade trees shall be closely checked at the time of off-loading for quality, mechanical injury, insect or disease damage, and callipered for correct trunk size. The height relationship to caliper size shall be analyzed at this time also.

.0483 Rejection of Plants - Plant material shall be rejected if the following requirements are not fulfilled:

1. If plants do not meet plan requirements in ball size, trunk diameter, height, diameter-height ratio, degree of heavy grade, branching, spread, etc.
2. Plants are unacceptable if they are delivered onto the project in what appears to be an unhealthy condition.
3. Plants are unacceptable if they are not shipped in a covered vehicle or are not covered in an acceptable manner.
4. Plants, which are brought onto the project with broken balls, or incur other forms of mechanical injury during or after shipment, must be rejected and replaced with quality plant material.
5. Plants are rejected if they show signs of insect or disease damage.
6. Plants are rejected if they exhibit any qualities which would prevent them from conforming to the American Standard for Nursery Stock.

.0484 Container Plants - On occasion, container plants are permitted as specified by plan notes or as allowed by specifications in lieu of B & B plants. Again, *The American Standard for Nursery Stock* shall be the guide. However, the central office liaison shall be called in to assist with this matter.

.0485 Maintenance - Maintenance during period of establishment is described in detail in section 724.17 of Standard Specifications. If specific problems arise, the central office liaison should be consulted.

.0490 Replacement Planting - Replacement planting shall be made during the time specified in the proposal and/or plan notes. All replacement plant material and workmanship shall be of the same high quality as was utilized during initial planting. Before replacement plants are placed in the ground, the replacement plants should be inspected by the central office liaison.

CHAPTER FIVE

TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.kentucky.gov

Ernie Fletcher
Governor

Bill Nighbert
Secretary

Marc Williams
Commissioner of Highways

Construction Memo No. 03-07

MEMO TO: District Executive Directors
TEBMs for Construction
District Construction Engineer
Resident Engineers

FROM: Greta Smith, P. E.
Director
Division of Construction

DATE: April 24, 2007

SUBJECT: Kentucky Pollution Discharge Elimination System Permit Coverage and Spill Protection Control and Countermeasure Plans

Due to recent communication from FHWA, the KY Division of Water, and US Environmental Protection Agency, the following is provided as a clarification for Spill Protection Control and Countermeasure (SPCC) plans and the Kentucky Pollution Discharge Elimination System (KPDES) KYR 10 permit coverage for all areas disturbed as a result of work that is accomplished for the Kentucky Transportation Cabinet (KYTC).

1) KYTC Division of Construction will continue the policy of obtaining the KPDES Permit for all areas within project right-of-way. Any exception to this policy will be noted in project specific special notes. The Best Management Practices (BMP) bid items are for use on the project within the right-of-way limits.

2) The prime contractor continues to be responsible for obtaining coverage under the KYR 10 KPDES Permit for all areas of disturbance (obtained by the contractor) outside right-of-way limits. Excess material sites obtained by the Cabinet are considered within right-of way limits. This policy applies to all off site areas regardless of size. The contractor shall provide copies of the Notice of Intent (NOI) and letter of coverage from the Kentucky Division of Water as proof of the permitted areas off of right-of-way. Copies of inspection reports (required for compliance with the KPDES permit) will be provided to the Cabinet upon request.

3) The prime contractor for each project is advised that when petroleum products (fuel, oil, etc.) in quantities that exceed 1,320 gallons are managed in conjunction with the project site, a SPCC plan must be prepared in accordance with the Oil Pollution Prevention and Control Act and the Clean Water Act. The threshold volume is determined by adding the capacity of all containers that hold petroleum products with a capacity of 55 gallons or more. This requirement applies to all contracts, not just those with a KPDES permit. The contractor is required to supply a copy of the plan for the project or an affidavit stating the SPCC plan is not applicable pursuant to the requirements of 40CFR 112.

4) The contractor is fully responsible for compliance with the SPCC and KPDES permit requirements. In accordance with the Standard Specifications, Section 107.14, 'the Contractor shall save harmless the Commonwealth, the Department and all of its officers, agents, and employees from all suits, actions or claims that may result from the contractors failure to comply with these requirements.'

5) Final closure of the project will not occur until all disturbed areas that are caused by project activities are stabilized and a notice of termination (NOT) has been filed with the Division of Water. The Contractor is responsible for filing the NOT for all permitted areas off of right-of-way. A copy of the NOT will be provided to the KYTC prior to issuance of final acceptance.

The requirements detailed in this memorandum are not a change to policy or standard specifications pertaining to existing projects. The KYTC has been advised to obtain evidence that contractors are complying with existing federal law, specifically, the Clean Water Act and the Oil Pollution Prevention Act.

If you have any questions regarding these procedures please contact this office.

c.

Marcelyn Mathews	Jim Rummage	Steve Waddle
Wesley Glass	Chuck Knowles	Nancy Albright
Ray Polly	David Kratt	Duane Thomas
C. O. Engineers	FHWA	KAHC

TRANSPORTATION CABINET
Frankfort, Kentucky 40622
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Ernie Fletcher
Governor

Bill Nighbert
Acting Secretary

Marc Williams
Commissioner of Highways

Construction Memo: 02-06

Memo To: Chief District Engineers
TEBM's for Construction
District Construction Engineers
Resident Engineers
Highway Contractors

From: Dexter Newman, P.E., Director

Date: February 06, 2006

Subject: Standard Specification Section 213.03.03
KPDES BMP Inspection and Maintenance

Currently, this section requires inspection of the erosion control devices weekly and after each 0.1 inch rainfall event. This specification has been modified to require inspection of erosion control devices weekly and after each 0.5 inch rainfall event. The remainder of this provision remains unchanged.

With this change is a reminder to use Form TC 63-61 Erosion Control Inspection Report/Update to document all inspections performed for the project. Also, form TC 63-60 is to be used for certification by the contractor and resident engineer concerning the storm water best management practices plan. This form and the initial storm water BMP plan that reflects the erosion controls to be used at the beginning of the project are to be completed prior to the initiation of construction. Erosion controls called for by the BMP plan for the initial phase of construction are to be in place before earth disturbing work commences. An electronic version of these forms is available on the web at:

http://transportation.ky.gov/construction/forms/

We have been doing much better on establishing erosion control on the project in recent years. However, we are not documenting our efforts. Please scan the above forms when completed and e-mail them to Stephen Bowling and Shelby Jett, who need them for documentation purposes. Also, please do the same for the weekly erosion inspections. From the regulatory agency's viewpoint, if the erosion control efforts are not documented, they never happened.

In the fall of 2006, there will be an effectiveness review of our erosion control processes in regards to storm water management. The documentation requested by this memo will be a part of that review.

DN/mgf

Kentucky Transportation Cabinet

Department of Highways
Division of Construction

Erosion Control Inspection Report

TC 63-61
Mod. 06/07

Scope of Inspection

Project #:

Date:

C.I.D. #:

Contractor Representative:

Road Name:

Inspector:

Prime Contractor:

Inspector Qualifications:

Type of Inspection:

Resident Engineer:

Rainfall Since Last Inspection:

Actions Required from Last Inspection have been performed:

Inspection Results

Areas To Be Disturbed

Stations	Imminent Construction Activity	Location of BMP's to be Placed	Remarks

Disturbed Areas

Stations	Construction Activity	Date of Last Activity	Location of Existing BMP's to be Corrected	Location of Additional BMP's Necessary	Location of Areas Where Stabilization is Required

Stabilized Areas

Stations	Type of Stabilization	Location of Existing BMP's to be Corrected	Location of Additional BMP's Necessary	Remarks

House - Keeping	Locations	Remarks
Vehicle Exit Points		
Concrete Wash-Out		
Chemical Containment		

Additional Comments

Inspection Summary

*Note: This report only details actions that must be taken at this time. Records of all previous actions and devices utilized are compiled in the Daily Work Reports related to this project.

Action by the contractor is required according to this report **Yes / No**

KYTC Representative: Date:

KYTC Resident Engineer: Date:

NOTE: In accordance with the requirements of the KYTC Standard Specifications for Road and Bridge Construction 2004, Subsection 213.03.02, a penalty equal to the contractual provision for liquidated damages will be imposed on the Contractor if the deficiencies identified in this Erosion Control Inspection Report are not corrected in a manner acceptable to the Department of Hightways within 5 days of receipt of this report. Failure to correct may result in the suspension of all operations and the withholding of all amounts due on current pay estimates until all aspects of the subject work are completed and approved

Contractor Representative: Date:

KPDES KYR10 Permit

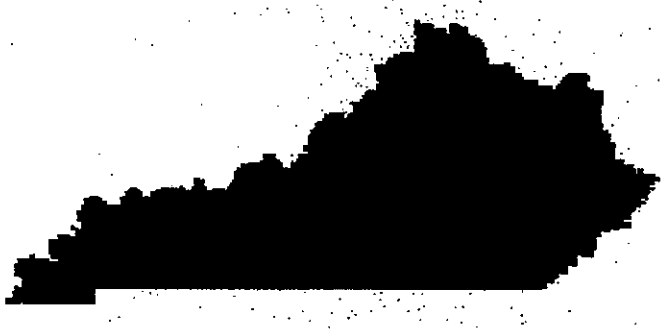
This notebook contains the documentation used by KYTC inspectors for compliance relating to the KPDES KYR10 general permit for construction. The sections in this notebook are:

- Permit - KPDES Permit
- NOI - Notice of Intent
- BMP Plan - Best Management Practices Plan
- 401/404 - Clean Water Act Section 401/404 certification/permit
- EPSC - Erosion Prevention and Sediment Control Plan Sheets
- Contract - Contract information relating to the KPDES permit
- DWRs - Daily Work Reports
- Inspections - Project inspections for KPDES Permit BMP Plan compliance.
- SPCC – A copy of the contractors Spill Prevention Control and Countermeasure plan if there is one.
- Correspondence

The KPDES KYR10 permit is used by KYTC for compliance with the Federal Clean Water Act as it pertains to permitted discharge of storm water from highway construction activities.

Records retention – The documents that relate to the KPDES permit and its compliance are to be retained for a period of three years or a period of one year after the Notice of Termination has been submitted to the Division of Water.

KPDES



STORM WATER GENERAL PERMIT

PERMIT NO.: KYR10

GENERAL KPDES PERMIT FOR STORM WATER POINT SOURCE DISCHARGES

CONSTRUCTION ACTIVITIES

In compliance with the provisions of the Kentucky Revised Statutes Chapter 224 and pursuant to 401 KAR 5:055, Section 5, the following discharges are authorized:

All new and existing storm water discharges associated with construction activity that are required to have a permit pursuant to 401 KAR 5:055, Section 1 and KRS 224.16-050.

Specifically excluded from authorization under this permit are operations that:

1. Are subject to an existing individual KPDES permit or application,

2. Are subject to a promulgated storm water effluent guideline or standard,

3. The Director has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard or to the impairment of a 303(d) listed water, or

4. Are into a surface water that has been classified as an Exceptional or Outstanding or National Resource Water.

The receiving water for any discharge authorized by this permit is located within the political boundaries of the Commonwealth of Kentucky. Such authorization is in accordance with the effluent limitations and other conditions set forth in PARTS I, II, III, and IV hereof. This permit consists of this cover sheet, PART I 1 page, PART II 1 page, PART III 1 page, and PART IV 4 pages.

This permit shall become effective on October 1, 2002.

This permit and the authorization to discharge shall expire at midnight, September 30, 2007.

9/13/02
Date Signed

Jeffrey W. Pratt, Director
Division of Water

Robert W. Logan
Commissioner

DEPARTMENT FOR ENVIRONMENTAL PROTECTION
Division of Water, Frankfort Office Park, 14 Reilly Road
Frankfort, Kentucky 40601

A. Effluent Limitations and Monitoring Requirements

No monitoring is required.

B. Schedule of Compliance

The permittee shall achieve compliance with all requirements upon notification of coverage under this general permit.

STANDARD CONDITIONS FOR KPDES PERMIT

The permittee is also advised that all KPDES permit conditions in KPDES Regulation 401 KAR 5:065, Section 1 will apply to all discharges authorized by this permit.

This permit has been issued under the provisions of KRS Chapter 224 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits or licenses required by this Cabinet and other state, federal, and local agencies.

PART III

OTHER REQUIREMENTS

A. Retention of Records:

The permittee shall keep the Best Management Practices (BMP) plan developed in accordance with PART IV of this permit one (1) year after coverage under this permit ends. This period may be extended by request of the Director at any time.

B. Reopener Clause:

This permit shall be modified, or alternatively revoked and reissued, to comply with any applicable effluent standard or limitation issued or approved under 401 KAR 5:050 through 5:080 and KRS 224 if the effluent standard or limitation so issued or approved:

1. Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or

2. Controls any pollutant not limited in this permit.

The permit as modified or reissued under this paragraph shall also contain any other requirements of KRS Chapter 224 when applicable.

C. Other Discharges:

All discharges covered by this permit shall be composed entirely of storm water except for discharges from fire fighting activities, fire hydrant flushing, potable water sources, waterline flushing, irrigation or lawn watering, detergent free building or pavement washing where spills or leaks of toxic materials have not occurred or have been completely removed, air conditioning condensation, natural springs, and uncontaminated ground water sources.

This permit can only authorize storm water discharges from construction activity that are mixed with storm water discharges from other industrial activity, including dedicated asphalt and concrete plants, if the other industrial activity discharge is in compliance with a different KPDES permit.

D. Releases in Excess of Reportable Quantities:

The presence of hazardous substances or oil in the storm water discharge shall be minimized in accordance with the BMP plan. Coverage under this permit does not relieve the permittee of the reporting requirements of 40 CFR Part 117 and 40 CFR Part 302.

PART IV

BEST MANAGEMENT PRACTICES

A storm water Best Management Practices (BMP) plan shall be developed in accordance with good engineering practices for each site covered by this permit. The BMP plan shall identify potential sources of pollution that may reasonably be expected to affect the quality of storm water discharges from the site. The BMP plan shall describe and ensure the implementation of practices that are to be used to reduce the pollutants in storm water discharges and to assure compliance with the terms and conditions of this permit. Facilities must implement the BMP plan required by this PART as a condition of this permit.

The BMP plan shall:

1. Be completed before submittal of the NOI for coverage under this permit.

2. Be implemented beginning with the initiation of construction activities.

Signature and Plan Review:

The BMP plan shall be signed in accordance with PART II and shall be kept onsite.

The permittee shall make the BMP plan available upon request to the Director, to a state or local agency approving sediment, erosion, grading or storm water management plans, or in the case of a storm water discharge to a MS4 with a KPDES permit, to the operator of the system.

After a review, the permittee may be notified that the BMP plan does not meet the minimum requirements of this PART. In that case, the permittee shall modify the BMP plan within seven (7) days of notification and shall submit a written certification that the requested changes have been made.

BMP plans required by this permit are considered reports that shall be made available to the public, upon written request by the public, in accordance with Section 308(b) of the Clean Water Act (CWA). However, the permittee may claim any portion of the BMP plan as confidential, in accordance with 40 CFR Part 2.

Plan Modification:

The permittee shall modify the BMP plan when there is a change in design, construction, operation, or maintenance of the site which has a significant effect on the potential for the discharge of pollutants to waters of the Commonwealth and shall implement the changes within seven (7) days.

Modification for Ineffectiveness:

The permittee shall amend the BMP plan if it proves to be ineffective in controlling the discharge of pollutants to waters of the Commonwealth and shall implement the changes within seven (7) days.

Minimum Requirements:

The BMP plan shall include, as a minimum, Items A through H.

A. Site Description:

The BMP plan shall include a clear description of the nature of the construction activity, the order of major soil disturbing activities, estimates of the total project area and the total disturbed area, the post construction runoff coefficient, any existing data describing soil condition or discharge quality, receiving water name, and a site map. The site map shall indicate drainage patterns and show approximate slopes after grading, areas of disturbance, the location of control measures, surface waters or wetlands, and storm water discharge locations.

B. Sediment and Erosion Control Measures:

The BMP plan shall include a clear description of what sediment and erosion control measures will be used and when they will be implemented. (For example, perimeter controls for one (1) portion of the site will be installed after the necessary clearing and grubbing, but before clearing and grubbing the remaining portions of the site. Perimeter controls will be actively maintained until upward portions of the site are stabilized). The following control measures shall be used as a minimum.

1. Soil Stabilization Practices - Existing vegetation shall be preserved where possible. All disturbed areas of the site shall be stabilized. Stabilization shall begin within 14 days on areas of the site where construction activities have permanently or temporarily (for 21 days or more) ceased. When snow cover causes delays, stabilization shall begin as soon as possible.

   Stabilization practices include seeding, mulching, placing sod, planting trees or shrubs, and using geotextile fabrics and other appropriate measures.

2. Perimeter Structural Practices - Silt fences or other equivalent structural practices shall be used on all side and down slope borders of the site. Alternatively, a sediment basin shall be used that provides 3,600 cubic feet of storage capacity per disturbed acre drained. For common drainage locations that serve more than ten (10) disturbed acres at one time, a sediment basin must be used if possible.

   Structural practices include protecting drain inlets and outlets and using silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, reinforced soil retaining systems, gabions, sediment basins and other appropriate measures. The installation of these devices may be subject to Section 404 of the CWA.

3. Storm Water Management Devices - Management devices shall be installed during construction to control the pollutants in storm water discharges that will occur after construction has been completed. Velocity dissipation devices shall be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive flow so that the original physical and biological characteristics and functions of the receiving waters, such as the hydroperiod and hydrodynamics, are maintained and protected. When considering storm water management devices, the goal should be 80% removal of Total Suspended Solids that exceed predevelopment levels. If this goal is not met, the permittee shall provide justification for refusing each device based on site conditions.

Management devices include velocity dissipation devices, storm water retention and detention basins, wet ponds, vegetated swales and natural depressions used for flow reduction, runoff infiltration devices, sequential systems that combine several devices and other appropriate measures. The installation of these devices may be subject to Section 404 of the CWA.

The permittee is not responsible for the maintenance of these devices once discharges associated with construction activity have been eliminated.

C. Other Control Measures:

No solid materials, including building materials, shall be discharged to waters of the Commonwealth, except as authorized by a Section 404 permit.

Off-site vehicle sediment tracking and dust generation shall be minimized.

Waste disposal methods and sanitary sewer or septic systems shall comply with applicable state or local regulations.

D. Other State or Local Plans:

The BMP plan shall include any requirements specified in sediment and erosion control plans, storm water management plans or permits that have been approved by other state or local officials. Upon submittal of the NOI, other requirements for surface water protection are incorporated by reference into and are enforceable under this permit (even if they are not specifically included in the BMP plan required by this permit). This provision does not apply to master or comprehensive plans, non-enforceable guidelines or technical guidance documents that are not identified in a specific plan or permit issued for the construction site by state or local officials.

E. Maintenance:

The BMP plan shall include a clear description of the maintenance procedures necessary to keep the control measures in good and effective operating condition.

F. Inspections:

Qualified personnel shall inspect all storm water control measures, discharge locations, vehicle exits, disturbed areas of the construction site and material storage areas at least once every seven (7) days (and within 24 hours of the end of a storm that is 0.5 inches or greater) and areas that have been temporarily or finally stabilized at least once a month. Revisions to the BMP plan based on the results of the inspection shall be implemented within seven (7) days.

Control measures shall be inspected to ensure correct operation. Accessible discharge locations shall be inspected to ensure that velocity dissipation devices are effective in preventing significant impacts to receiving waters. Vehicle exits shall be inspected for evidence of, or the potential for, off-site sediment tracking. Disturbed areas and material storage areas that are exposed to precipitation shall be inspected for evidence of, or the potential for, pollutants entering the drainage system.

A report summarizing the scope of the inspection, names and qualifications of personnel making the inspection, the date of the inspection, major observations relating to the implementation of the BMP plan, and any corrective actions taken shall be made and kept as part of the BMP plan for at least three (3) years after the date of inspection, or until one (1) year after coverage under this permit ends. The report shall be signed in accordance with Part II of this permit.

G. Non-Storm Water Discharges:

The BMP plan shall identify and ensure the implementation of appropriate pollution prevention measures for any non-storm water component of a discharge as listed in PART III C, except for flows from fire fighting activities.

H. Contractors and Subcontractors:

The BMP plan shall clearly state the contractor or subcontractors that will implement each control measure identified in the BMP plan. All contractors and subcontractors identified in the BMP plan must sign a copy of the certification statement below in accordance with PART II of this permit before conducting any professional service at the site:

> "I certify under penalty of law that I understand the terms and conditions of the general National Pollutant Discharge Elimination System (NPDES) permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification."

The certification must include the name and title of the person providing the signature, the name, address, and telephone number of the contracted firm, the address, or other identifying description of the site and the date the certification is made. All certification statements must be included in the BMP plan.

JAMES E. BICKFORD
SECRETARY

PAUL E. PATTON
GOVERNOR

COMMONWEALTH OF KENTUCKY
NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
FRANKFORT OFFICE PARK
14 REILLY RD
FRANKFORT KY 40601

FACT SHEET

GENERAL KPDES PERMIT FOR STORM WATER POINT SOURCE DISCHARGES

CONSTRUCTION ACTIVITIES

KPDES No.: KYR10
Date: July 22, 2002

1. COVERAGE UNDER THIS GENERAL PERMIT

Area of Coverage:

This permit covers all areas of the Commonwealth of Kentucky.

Discharges Eligible for Coverage:

This permit covers all new and existing storm water discharges associated with construction activity. Only construction activities that disturb five (5) acres or more are required to have coverage under this permit. Beginning in March 2003, construction activities that disturb one (1) acre or more are also required to have coverage under this permit.

Limitations on Coverage:

This permit does not authorize discharges that:

1. Are subject to an existing individual KPDES permit or application,

2. Are subject to a promulgated storm water effluent guideline or standard,

3. The Director has determined to be or may reasonably be expected to be contributing to a violation of a water quality standard or to the impairment of a 303(d) listed water, or

4. Are into a surface water that has been classified as an Exceptional or Outstanding or National Resource Water.

2. REQUIREMENTS FOR GENERAL PERMIT COVERAGE

Notice of Intent:

A signed copy of a Notice of Intent (NOI) form must be submitted to the following address 48 hours before construction activity begins:

Kentucky Division of Water
KPDES Branch
Inventory and Data Management Section
14 Reilly Road
Frankfort, Kentucky 40601

vb

Unless notified by the Director to the contrary, owners or operators who submit the above notification are authorized to discharge storm water associated with construction activity under the terms and conditions of this permit. Discharge may begin 48 hours after the NOI is postmarked, even if the permittee has not yet received a copy of the general permit from the Division of Water.

Notice of Termination:

When all storm water discharges associated with construction activity are eliminated and the site has been finally stabilized, the owner or operator must submit a signed copy of a Notice of Termination (NOT) form in order to end coverage under this general permit and nullify its requirements. NOTs are to be sent to the above address.

Change of Ownership:

When the owner or operator of a site covered by this permit changes, the new owner or operator must submit a notice 48 hours before the change in order to transfer coverage under this general permit. Change of ownership notices are to be sent to the above address.

3. ADDITIONAL INFORMATION

Municipal Notification:

Sites which discharge storm water associated with construction activity to a municipal separate storm sewer system (MS4) shall submit a signed copy of the NOI to the operator of the MS4 48 hours before construction activity begins.

Other Storm Water Discharges:

Storm water discharges authorized by this permit may be combined with other sources of storm water that are not associated with construction activity if the resulting discharge is in compliance with this permit.

4. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

No monitoring is required.

5. JUSTIFICATION OF PERMIT CONDITIONS

The following regulations are pursuant to KRS 224.10-100, 224.70-100, and 224.70-110.

Best Management Practices:

This requirement is consistent with 401 KAR 5:065, Section 2(10).

Antidegradation:

The conditions of 401 KAR 5:029, Section 1(1) will be satisfied by coverage under this permit. A review under Section 1(2), (3), and (4) will not be applicable.

6. COMPLIANCE SCHEDULE

The permittee shall achieve compliance with all requirements upon notification of coverage under this general permit.

7. PERMIT DURATION

This permit is valid for five (5) years. Upon issuance of a new general permit, the permittee will have coverage automatically renewed. A new NOI or other notification is not necessary.

8. PERMIT INFORMATION

The application, draft permit, fact sheet, public notice, comments received, and additional information is available from the Division of Water at 14 Reilly Road, Frankfort Office Park, Frankfort, Kentucky 40601.

9. REFERENCES AND CITED DOCUMENTS

All material and documents referenced or cited in this fact sheet are part of the permit information as described above and are readily available at the Division of Water Central Office. Information regarding these materials may be obtained from the person listed below.

10. CONTACT

Additional information concerning this permit may be obtained from Ronnie Thompson at the address noted in Item 8 or at (502) 564-2225, extension 423.

11. PUBLIC NOTICE INFORMATION

Please refer to the attached Final Permit Decision Cover Letter or Public Notice for details regarding the procedures for a final permit decision, deadline for comments, and other information required by 401 KAR 5:075, Sections 12 and 4(2)(e).

Notice of Intent and Notice of Termination (NOI / NOT)

These document are required by the KPDES KYR10 permit.

The permit becomes effective 48 hours from the time the NOI is submitted to the Division of Water. The Division of Water interprets this to mean the date it is received by them. Inspections are to be performed continuously (on a weekly, monthly and after ½ inch rain events) from the time of submission of the NOI until the NOT is filed.

This section will contain:

- Notice of Intent (NOI) as signed and transmitted to the Division of Water
  - The Notice of Intent (NOI) any time after letting. Following the transmittal of the NOI, an inspection should be performed documenting the status of the project. This inspection should occur within one week of transmittal of the NOI (See the Inspection tab for further guidance).
- The letter of transmittal for the Notice of Intent to the Division of Water:
  - This transmittal letter is to be signed by the Chief District Engineer.
  - This letter of transmittal is to include a statement that delegates responsibility for signing reports to the resident engineer in charge of the project. Include how to contact the resident engineer in this statement.
  - Use a method for delivering this letter that confirms the date the Division of Water receives the NOI.
  - Send a copy of the transmittal letter and NOI to the Division of Construction and the Division of Environmental Analysis.
  - The notice of intent is to be copied to the local MS4 agency when the project is inside of the MS4 jurisdiction (city limit and/or county). The letter of transmittal to the Division of Water should indicate sending a copy to the local MS4 agency. Check with the District MS4 coordinator if you have questions.
- A copy of the receipt showing the date the Division of Water received the NOI is to be placed in this section of the folder.
  - Enter the date that the NOI received by the Division of Water in Site Manager
- The letter of Coverage from the Division of Water.
  - Enter the date of this letter and permit number in site manager.
- A notice of termination is to be prepared at the time the project is stabilized and formaled. The NOT is to be signed by the Chief District Engineer and sent to the Division of Water.
  - Use a method delivering this letter that confirms the date the Division of Water receives the NOT.
  - Enter the date NOT is submitted into site manager.

Section I – General Information

Contact List:

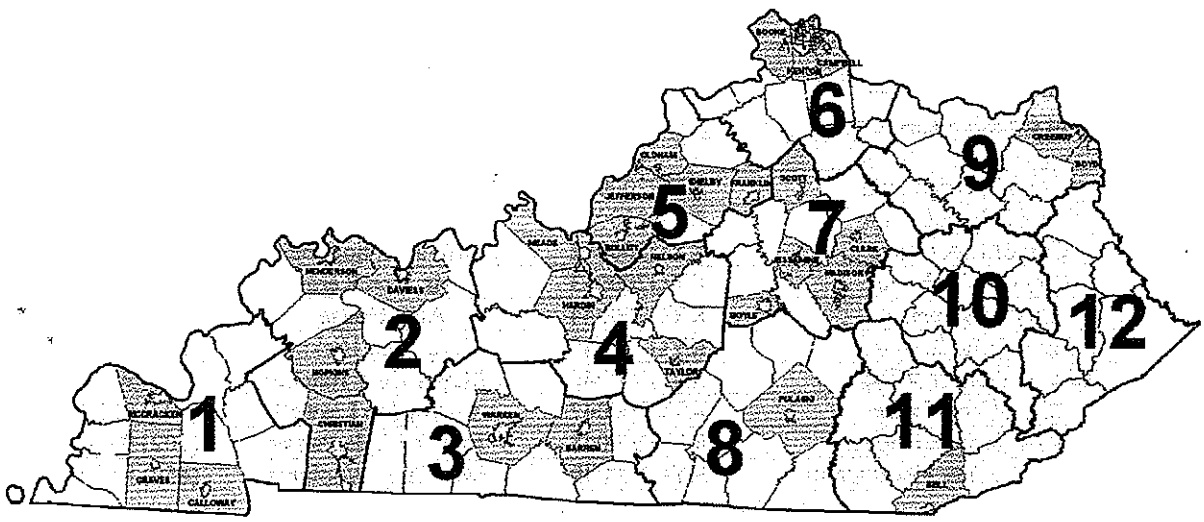
Kentucky Transportation Cabinet
Office of Project Development
Division of Environmental Analysis
200 Mero Street, W5-22
Frankfort, Kentucky 40622

Director – David Waldner .....(502) 562-7250
KYTC Statewide sMS4 Coordinator – Shelby Jett.....(502) 562-7250

District Phase II Coordinators
District 1 – Paducah: Allen Thomas .....(270) 898-2431
District 2 – Madisonville: Charlotte Cotten.....(270) 824-7080
District 3 – Bowling Green: Renée Slaughter.....(270) 746-7898
District 4 –Elizabethtown: Kevin Young.....(270) 766-5066
District 5 –Louisville: Jeff Schaeffer.....(502) 367-6411
District 6 – Covington: Mike Bezold.....(859) 341-2700
District 7 – Lexington: Phil Logsdon .....(859) 246-2355
District 8 – Somerset: Tom Clouse.....(606) 677-4017
District 9 – Flemingsburg: Deanna Harris .....(606) 845-2551
District 10 - Jackson: Jeff Allen .....(606) 666-8841
District 11 – Manchester: Dean Croft.....(606) 598-2145
District 12 - Pikeville: Frank Castle .....(606) 433-7791

Kentucky Division of Water
KPDES Branch
14 Reilly Road
Frankfort Ky 40601

(502) 564-3410



Partner Entity Table:

Community / Entity	Permit No.	Official Contact	Telephone
City of Radcliff	KYG2000001	Mr. Harold Brown	(270) 351-8150
City of Ashland	KYG2000002	Mr. Marion Russell	(606) 327-2007
Hardin County Fiscal Court	KYG2000003	Vicki Brackett	(270) 765-2350
City of West Point	KYG2000004	Mr. Jon Baldridge	(502) 922-4260
Oldham County Fiscal Court	KYG2000005	Ms. Beth Stuber	(502) 222-1476
City of Richmond	KYG2000006	Mr. Mike Roberts	(859) 623-1000
Sanitation District No.1-No. KY	KYG2000007	Mr. Sean Blake Ms. Sara Zeph Mr. Jim Gibson Ms. Jamie Eggemeyer	(859) 578-7468 (859) 578-6744 (859) 578-6882 (859) 578-6764
City of Hillview	KYG200008	Mr. James Eadens	(502) 957-5280
City of Hopkinsville	KYG200009	Mr. J. D. Longenfelder	(270) 887-4285
City of Mt.Washington	KYG200010	Mr. Joseph Fick	(502) 538-4216
City of Murray	KYG200011	Mr. James Oakley	(270) 762-0330
City of Glasgow	KYG200012	Mr. Jack Chadwell	(270) 651-5977
City of Florence	KYG200013	Mr. Eric Hall	(859) 647-5416
City of Danville	KYG200014	Mr. John Bowling	(859) 238-1200
City of Campbellsville	KYG200015	Ms. Suzie Bradley	(270) 469-3966
City of Mayfield	KYG200016	Mr. Brad Rogers	(270) 247-1981
Christian County Fiscal Court	KYG200017	Mr. Chris Sutton Mr. Craig Morris	(270) 886-9484 (270) 886-9484
City of Owensboro	KYG200018	Mr. Joseph Schepers	(270) 687-8641
City of Henderson	KYG200019 #	Mr. John Baker	(270) 826-2824
City of Bowling Green	KYG200020	Mr. Tim Slattery	(270) 393-3099
City of Paducah	KYG200021	Mr. Rick Murphy	(270) 444-8511
City of Madisonville	KYG200022	Ms. Julie Perry Mr. William Jackson	(270) 824-2120 (270) 824-2120
City of Shelbyville	KYG200023	Mr. W. H. Brown	(502) 633-4754
City of Hebron Estates	KYG200024	Mayor Jerry Clark	(502) 957-3106
Greenup County Fiscal Court	KYG200025	Judge Robert Carpenter	(606) 473-6440
City of Greenup	KYG200026	Mayor Donna Hewlett	(606) 473-7331
City of Muldraugh	KYG200033	Mr. Anthony Lee	(502) 942-2824
City of Frankfort	KYG200034	Mr. Eric Brooker	(502) 352-2087
City of Elizabethtown	KYG200035	Mr. Robert Bush	(270) 765-6121
City of Shepherdsville	KYG200036	Mayor Joseph Sohm	(502) 955-7803
City of Bardstown	KYG200037	Mr. George Greenwell	(502) 348-5947
City of Vine Grove	KYG200038	Mayor Gary Minter	(270) 877-2422
Bullitt County Fiscal Court	KYG200039	Deputy Judge Executive Robert Flaherty	(502) 543-2262
City of Georgetown	KYG200040	Mr. Ray Caywood	(502) 867-2000
City of Nicholasville	KYG200041	Mr. Gary Goldey	(859) 885-1321
City of Oak Grove	KYG200042	Mr. Josh Sommer	(270) 439 5979
City of Winchester	KYG200043	Mr. Ken Kerns	(859) 744-2821
City of Somerset	KYG200044	Alex Godsey	(606) 679-6366
City of Middlesboro	KYG200045	Mayor Ben Hickman	(606) 248-5670
City of Pioneer Village	KYG200046	Mayor Gary Hatcher	(502) 957-3800
City of Fox Chase	KYG200047	Mayor Joe Laswell	(502) 955-9593
City of Hunters Hollow	KYG200048	Mayor Linda Parker	(502) 957-4205
Jessamine County Fiscal Court	KYG200049	Ms. Kelly Woolums	(859) 885-4500

(# Has not co-permitted with KYTC)

The KPDES BMP Plan for the project

- The BMP Plan as signed by all parties:
  - Resident Engineer
  - Contractor
  - Sub Contractors that have any responsibility for implementing the BMP Plan.

401/404 Permit

US Army corps of Engineers Section 404 permit.

- Include a copy of the US Army Corps of engineers permit for this project, if any.
- Include a copy of the Division of Water 401 water quality certification letter, if any.

EPSC Plan Sheets

- These plan sheets will show areas within the right of way that are covered by the subject permit. Information on these plans includes:
  - Potential areas of the project that may be disturbed. These areas will be annotated as Disturbed Drainage Areas (DDAs)
  - The point discharge locations.
  - The area draining to each point discharge.
  - Areas where storm water run off leaves the project by sheet flow.
  - Site specific solutions proposed by the design engineer.

Contract

This section will contain information extracted from the contract documents that are specific to this project:

- Contract bid items for Best Management Practices (BMPs)
- Special Notes/supplemental specifications relating to erosion prevention and sediment control or the KPDES permit.
- The CAP
- Pre-construction meeting notes relating to the KPDES permit.

Daily Work Reports (DWRs)

The DWRs will be maintained in Site Manager. This tabbed section is for use by the resident to provide a place to put the DWRs that relate to requests for information about the KPDES permit or compliance issues.

1. General
BMPs are installed and maintained per BMP Plan.
Construction entrances are installed at all points of site access.
Sensitive features are identified and protected.

2. Inspection Sequence
When approaching site, give an overall assessment of the site. Do the BMPs generally appear to be functional?
When entering site, assess whether sediment is in the street.
Start at the outlet of each drainage area.
Has any sediment left the site at the outlet?
If yes, how much was there and how far did it travel. If the outlet protection is the cause, then note that corrections are needed. If not, then move up the drainage area to determine the cause.
If no sediment left the site, travel up the drainage area to the next BMP to check its integrity.
Keep moving up the drainage area checking the integrity of each BMP.
Check for stabilization of previously disturbed areas.
Check for land disturbance and BMPs in newly disturbed areas.

3. Construction Entrances
Stone is adequately clean to effectively remove mud from vehicle tires.
Installed 2" or larger stone, 6-inch minimum depth laid on a geotextile fabric.
Minimum length is 50 feet; minimum width is 14 feet (one way traffic) or 24 feet (two-way traffic).

4. Temporary Diversions
Berm is stabilized.
Side slopes are no more than 2H:1V.

5. Topsoil Stockpiling/Excess Material Management on Right of Way
Do not place on roadway or pavement or in floodplains or channels.
Need sediment barrier.
Need stabilization if stockpile is idle for more than 14 days.
Areas off Right of Way are covered by a contractor obtained KPDES permit.

6. Vegetated Buffers
Areas that need to remain vegetated for buffer zones have been identified.
Buffers are not to be mowed or sprayed.

7. Stabilized Areas
Areas where finish grade has been complete for 14 days or where operations have ceased for 21 days are to be stabilized by:
Temporary mulch is to be applied with a thickness of two inches of coverage and tacked.
Seed and protect per seeding plan, sodding, erosion blanket , chemical stabilization or other methods.

8. Erosion Control Blankets
Final slopes of erodable materials 2H:1V or steeper should be protected with ECB.
Ground under ECB should be smooth so that ECB makes good contact with ground.
Installation begins with trench at top of hill and then rolled down hill.
Adjacent strips are overlapped per manufacturer's recommendation.
ECB is anchored per manufacturer's recommendation.

9. Outlet Protection
Apron dimension and material size matches BMP Plan.
Rip-rap thickness is 1.5 times the maximum stone diameter.
Geotextile fabric is under rip-rap.

10. Energy dissipation
Geotextile fabric is under any rip-rap.
Top of rip-rap or concrete at downstream end is level with the receiving area.

11. Silt Fence
Not being used in concentrated flow.
Drainage area is no more than ¼ acre per 100 linear foot of silt fence.
Installed on the contour or with J-Hooks.
Fence is trenched in with stakes on downstream side.
Support posts must be steel or 2 x 4 wood or approved by the resident engineer.
Sediment behind fence is not greater than 1/3 the height of the fence or 18 inches max.

12. Drainage Structure Inlet Protection
All sides of the inlet are protected.
Inlet does not cause water to pond and cause traffic hazards or damage to other property.
Overflow point is provided.
Sediment behind inlet protection is not greater than ½ the height of the barrier.

13. Temporary Sediment Trap
Traps are sized to receive 3600 cubic feet of sediment (cumulative) per disturbed acre in the upstream drainage area.
Drainage area to trap does not exceed 10 acres.
Trap is not located in waters of the US.
Trap flow length is at least twice its flow width.
Trap embankment slopes are no more than 2H:1V.
Silt traps A, B and C are constructed in accordance with standard drawings.
Center of Silt Trap B is lower than the outer ends.
Silt Traps are not being by-passed.
Sediment in trap is less than half of the trap volume.

14. Sediment Basin
Basin flow length is at least twice the flow width.
Basin side slopes, berms, inlets, and outlet channels are stabilized.
Trap is sized to receive 3600 cubic feet of sediment per disturbed acre in the upstream drainage area.
Drainage area to basin is a minimum of 10 acres and maximum of 120 acres.
Dam height is not greater than 20 feet.
Inside and outside dam slopes are no more than 3H:1V.
Minimum top width of dam is 10 feet.
Overflow spillway is armored.
Inflow is diverted to back of basin.
Emergency spillway energy dissipator is at least four feet beyond the toe of the dam.
Sediment in basin is less than half of the trap volume.
15. Good housekeeping
Specific areas for concrete wash are provided in accordance with the BMP Plan.
There is adequate containment of fuel, chemicals, waste, etc. Contaminants are not being introduced to storm water.

16. Inspection follow-up
Inspection form is completed and signed.
Inspection findings have been communicated to the Contractor and others, as determined at the Precon Mtg.
BMP deficiencies have been communicated to the Resident Engineer.
BMP Plan is put back in its place.

Inspections

An initial inspection will be performed either before or within one week of after filing of the Notice of intent (NOI) with the division of water. No work may be performed until this inspection is performed. This inspection will cover the entire project to identify areas that need to have BMPs to prevent pollution from leaving the project. The initial area to be worked will have BMPs identified that are needed to manage areas that will be disturbed. BMPs for areas to be disturbed must be installed before work begins.

- Inspections will be performed:
  - Initially, before any work involving disturbance activities occurs.
  - Weekly for areas that have been disturbed.
  - Following a ½ inch or greater rain event.
  - Monthly for areas that are stabilized.
- Inspections will address all work that is to be performed in the week following the inspection.
- Inspections will continue until the Notice of Termination (NOT) is filed.

Inspection reports are to cover the major observations about the condition and performance of BMPs. BMPS that need to be cleaned, added, removed, etc. are to be noted here in general terms. The status of construction by stations is to be tracked. The specific actions to be taken by station and BMP are to be detailed in the Daily Work Reports.

At least three months records of the inspection reports required by the KPDES permit are to be kept in this section of the folder.

Spill Prevention Control and Countermeasure (SPCC) plan

Contractors that manage over 1,320 gallons of petroleum products (fuel and oil) are required by 40 CFR 112 to have a SPCC plan. This tab is the place to put a copy of this plan.

Correspondence

This tab will contain all correspondence not filed in another tabbed section that is related to compliance with the KPDES permit. It will include:

- Five day letters – copies of five day letters are to be sent to the Division of Environmental Analysis and the Division of Construction.
- Any other correspondence to and from the contractor that relates to implementation of the BMP plan that is not covered by inspection reports.
- Memos that relate to the implementation of the BMP Plan for this project.

ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

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Teresa J. Hill
Secretary

General Certification--Nationwide Permit # 14
Linear Transportation Projects

This General Certification is effective March 19, 2007, in conformity with the requirements of Section 401 of the Clean Water Act of 1977, as amended (33 U.S.C. §1341), as well as Kentucky Statute KRS 224.16-050.

Agricultural operations, as defined by KRS 224.71-100(1) conducting activities pursuant to KRS 224.71-100 (3), (4), (5), (6), or (10) are deemed to have certification if they are implementing an Agriculture Water Quality Plan pursuant to KRS 224.71-145.

For all other operations, the Commonwealth of Kentucky hereby certifies under Section 401 of the Clean Water Act (CWA) that it has reasonable assurances that applicable water quality standards under Kentucky Administrative Regulations Title 401, Chapter 5, established pursuant to Sections 301, 302, 304, 306 and 307 of the CWA, will not be violated for the activity covered under NATIONWIDE PERMIT 14, namely Linear Transportation Projects, provided that the following conditions are met:

1. This general certification shall not apply to nationwide permits issued for individual crossings that are part of a larger road segment project where the cumulative, unmitigated wetland impacts within a 14-HUC total one (1) acre or more.

2. The individual stream crossing will impact less than 300 linear feet of intermittent or perennial streams, unless excluded by condition # 3. Impacts to ephemeral streams are not limited under this general certification.

3. This general certification shall not apply to nationwide permits issued for individual crossings which meet condition # 2 but that are part of a larger road segment project where the cumulative, unmitigated intermittent and perennial stream impacts within a 14-HUC exceed 500 linear feet.

4. The activity will not occur within waters of the Commonwealth identified by the Kentucky Division of Water as Outstanding State or National Resource Waters, Cold Water Aquatic Habitat, or Exceptional Waters.

5. Stream impacts covered under this nationwide permit and undertaken by those persons defined as an agricultural operation under the Agricultural Water Quality Act must be completed in compliance with the Kentucky Agricultural Water Quality Plan.

6. Projects that do not meet the conditions of this general certification require an individual Section 401 water quality certification.

7. Activities qualifying for coverage under this general water quality certification are subject to the following conditions:

   - Stream crossings shall be constructed in such a manner that does not impede the movement of aquatic organisms.

   - Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse.

   - In areas not riprapped or otherwise stabilized, revegetation of stream banks and riparian zones shall occur concurrently with project progression. At a minimum, revegetation will approximate pre-disturbance conditions.

   - To the maximum extent practicable, all in stream work under this certification shall be performed during low flow.

   - Heavy equipment, e.g. bulldozers, backhoes, draglines, etc., if required for this project, should not be used or operated within the stream channel. In those instances where such in stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize turbidity and disturbance to substrates and bank or riparian vegetation.

   - Any fill shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If riprap is utilized, it is to be of such weight and size that bank stress or slump conditions will not be created because of its placement.

   - If there are water supply intakes located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when work will be done.

- Removal of existing riparian vegetation should be restricted to the minimum necessary for project construction.

- Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution), the Kentucky Division of Water shall be notified immediately by calling 800/928-2380.

Non-compliance with the conditions of this general certification or violation of Kentucky state water quality standards may result in civil penalties.

This general certification will expire on March 19, 2012, or sooner if the USACE makes significant changes to this nationwide permit.